UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/296,120	04/21/1999	THOMAS J. REDDIN	03628-0400	7995

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EXAMINER
JANVIER, JEAN D

ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/296,120	REDDIN ET AL.
	Examiner	Art Unit	
	Jean D Janvier	3622	MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2004*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,21-23,25-28,30-45,53 and 59-67* is/are pending in the application.

    4a) Of the above claim(s) <u>66</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,21-23,25-28,30-45,53,59-65 and 67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response To Applicant's Arguments

In response to the Applicant's remarks, the 101 Rejection, the Objections to claims 44-45

and the 112 Rejections are herein being modified as shown below. Furthermore. Furthermore,

and contrary to the Applicant's findings, independent claim 66 recites the following new

elements, which render the claim patentably distinct from the claims of Group I and which

requires additional search in a different class/subclass-

Said storage device **storing data representing one or more marketing solutions**

promoting the use of said item by said predetermined type of consumer based upon the selection

of messaging...

Said processor operative with said program to receive **a request for said one or more**

marketing solutions based upon said one or more activities or said one or more needs of said

predetermined type of consumer and to provide said one **or more marketing solutions**.

Having said that, the restriction of claim 66 has been made final.

DETAILED ACTION

Specification

Status of the claims

Applicant elects, with traverse, claims 1-2, 21-23, 25-28, 30-45, 53, 59-65 for

prosecution. Thus, claims 1-2, 21-23, 25-28, 30-45, 53, 59-65 and 67 are currently pending,

while the other claims are canceled except for claim 66, which is withdrawn from further

consideration.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 (including its dependent claims), 53 and 67 are rejected under 35 U.S.C. 101

because the claimed invention is directed to a non-statutory subject matter for not being useful,

tangible and concrete. In fact, the claimed invention in general, except for claim 66, pertains to

an abstract idea. For example, claim 1 recites a process for determining one or more

representative activities of said predetermined type of consumer without ever defining any

previous activities or whether or not these activities are stored in a database and read therefrom,

determining one or more representative uses of said item without ever defining whether or not

these representative uses are read from the activities or transaction data compiled and stored in a

database and creating demand for said item by said predetermined type of consumer without

defining the intervening steps. Furthermore, the claim or claim 1 fails to recite important

intervening steps; in other words, critical elements are missing from the claim language. The

same remarks hold true for the other claims, as cited above.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress

the power to "[p]romote the progress of science and useful arts, by securing for limited times to

authors and inventors the exclusive right to their respective writings and discoveries". In

carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to

"[w]hoever invents or discovers any new and useful process, machine, manufacture, or

composition or matter, or any new and useful improvement thereof." Therefore, a fundamental

premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right

to the inventors for "inventions" that promote the progress of "science and the useful arts". The

phrase "technological arts" has been created and used by the courts to offer another view of the

term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first

test of whether an invention is eligible for a patent is to determine if the invention is within the

"technological arts".

Further, despite the express language of §101, several judicially created exceptions have

been established to exclude certain subject matter as being patentable subject matter covered by

§101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas".

See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have

found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the

invention may nevertheless be statutory subject matter if the invention as a whole produces a

"useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial

Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals

(CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In

re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited

mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-

Walter-Abele test as applied to *Gottschalk v. Benson,* 409 U.S. 63, 175 USPQ (BNA) 673

(1972). Additionally, the court decided separately on the issue of the "technological arts". The

court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus on whether the
>
> claimed subject matter...is statutory, not on whether the product of the claimed
>
> subject matter...is statutory, not on whether the prior art which the claimed subject
>
> matter purports to replace...is statutory, and not on whether the claimed subject
>
> matter is presently perceived to be an improvement over the prior art, e.g.,
>
> whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human

language (e.g., Russian) into a target human language (e.g., English). The court found that the

claimed computer implemented process was within the "technological art" because the claimed

invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never

addressed this prong of the test. In *State Street Bank & Trust Co.,* the court found that the

"mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to

determining the presence of statutory subject matter but rather, statutory subject matter should be

based on whether the operation produces a "useful, concrete and tangible result". See *State Street*

Bank & Trust Co. at 1374. Furthermore, the court found that there was no "business method

exception" since the court decisions that purported to create such exceptions were based on

novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that

"[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, State Street never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

Claims 1 and 53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter. For example, the process or steps disclosed in independent claim 1 pertain to a manual process and therefore, the claims (claims 1-45) do not fall within the technological art. In other words, the steps or process of **determining one or more representative activities..., determining one or more representative uses... and creating demand for said item...**, as recited in claim 1, should be implemented via a device, such as a computer system, a database, a data communication, computer network, the Internet and so and so forth. Furthermore, the same remarks hold true for claims 46-52, claim 53 and claims 54-57.

Claim Objections

Claims 44-45 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of claims 1 and 39 respectively. Applicant is required to cancel claims 44-45, or amend claims 44-45 to place them in proper dependent form, or rewrite them in independent form.

[The steps of claims 1 and 39, as recited, should be incorporated within the bodies of claims 44-45 respectively and, upon executing proper computer instructions or codes by a computer processor, these steps can be performed. Hence, claims 44 and 45 must be canceled, amended or rewritten in independent form].

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 (including its dependent claims) and 67 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. For instance, claim 1 jumps from the steps of determining one or more representative activities of a user and determining one or more representative uses of a product to creating demand for said product by the user without reciting important intervening, critical or essential steps necessary to the practice of the invention, especially when the steps of determining suffer from a sufficient disclosure. It is not clear how the process goes from the steps of determining to the final step of creating demand. See *In re*

Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The same remarks hold true for the other

claims, as cited above.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 (including its dependent claims) and 67 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention. For instance, claim 1 jumps from the

steps of determining one or more representative activities of a user and determining one or more

representative uses of a product to creating demand for said product by the user without reciting

important intervening, critical or essential steps necessary to the practice of the invention,

especially when the steps of determining suffer from a sufficient disclosure. **It is not clear how

the process goes from the steps of determining to the final step of creating demand.** The

same remarks hold true for the other claims, as cited above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims a1-2, 21-23, 25-28, 30-45, 53, 59-65 and 67 are rejected under 35 U.S.C. 102(b)

as being anticipated by Deaton et al, US Patent 5,649,114.

As per claim 1, Deaton et al discloses a method comprising the steps of -

1.

Determining one or more representative activities, **such as the customer's purchases**

made at various participating retailers and recorded in a database wherein the customer's

purchase history, including volume purchase data, frequency purchase data, timing of

purchase data, recency of purchase data, preference data, and so on is established, of said

predetermined type of consumer **so that the customer can be specifically targeted (col. 71: 31-**

67; col. 86: 65 to col. 89: 22; col. 81: 56 to col. 82: 11; figs. 27-32; col. 10: 30-67);

Determining one or more representative uses of said item by said predetermined type of

consumer, **based upon the customer's purchase pattern or by tracking the customer's**

purchase cycle of a product to anticipate when the customer's may run out of the product

and need to buy the product again, during said one or more representative activities (col.71:

31-67; col. 10: 30-67); and

Creating demand for said item by said predetermined type of consumer based upon said

one or more representative uses of said item by said predetermined type of consumer during said

one or more representative activities **using the consumer's buying pattern corresponding to**

the item or product or by tracking the customer's or consumer's purchase cycle of the

product to anticipate when the customer's may run out of the product and need to buy or re-order the product (col.71: 31-67; col. 10: 30-67).

Claim 67 substantially recites limitations already addressed in claim 1 and thus, these limitations of claim 67 are rejected under a similar rationale as applied to claim 1 above.

As per claims 2 and 4, Deaton et al further disclose a method comprising the steps of gathering lifestyle information through the purchase history of an individual consumer during a particular period of time and subsequently performing an analysis of such lifestyle information so that a personal discount coupon can be provided to the individual customer redeemable on a product that the consumer has previously indicated a tendency to buy (col. 71: 31-45; figs. 29; col. 10: 30-67).

As per claims 5-19, 23, 25-28, 30-31, 34-37, 39 and 41-42, Deaton et al further disclose a method for customer promotion (advertising) wherein an identified customer using a check or credit card at a POS in a retail store during a shopping trip to pay for groceries and based on the identified customer prior shopping history, collected over a specific period of time, stored in a database associated with CVC Master Controller 965 of fig.19, he will receive a discount coupon redeemable during a future transaction on a particular promoted or advertised product, such as a brand of coffee, for which the said customer has previously indicated a tendency to buy upon analyzing his prior shopping transaction using conventional data mining and niche marketing techniques. This customized discount coupon is intended not only to encourage the identified

customer to return to the store to buy more items, but also to promote the store products in general. This discount coupon, promoting this coffee brand, can be communicated to the identified customer at the POS in the retail store in a printed form by printing a hard copy using receipt printer 969 connected to ECR of fig. 20 or the discount coupon can be electronically displayed to the customer on ECR display 968 of fig. 20 or stored in the database associated with CVC Master Controller 965 of fig. 19 or encoded on the customer's smart card 53 (col. 4: 52 to col. 10: 67; col. 71: 31-45; col. 89: 66 to col. 90: 34; figs. 29; col. 67: 23 to col. 68: 19).

As per claims 21-22, it is inherent in the art that a predetermined type of packaging will be carefully selected to package a promoted product based on some parameters associated with a target market, thereby making the promoted product or item more attractive to the targeted audience. For example, it is understood that Deaton's **promoted coffee** will be sold in a carefully selected package.

As per claims 32, 33, 38 and 43, it is inherent in the art that advertised products or promoted products or specials can be communicated to the customers through large posters displayed within the store or outside the store windows. It is also very popular in the industry to distribute product promotions such as coupons on flyers placed in the store to be picked by the customers upon entering the store. Furthermore, retailers find it very convenient and effective to advertise their products, including discount coupons, in a virtual environment or Internet via a Web site by having information displayed on (remote) screens associated with customers' computers upon accessing the retailers' web sites, thereby allowing millions of prospective

customers to access their store in real time twenty-four hours a day and seven days a week

(col.10: 33, 42, 45, 55).

As per claims 44-45, Deaton et al disclose a system or method having the appropriate

Hardware and Software or program subroutines to perform the various steps or tasks as set forth

in their system (figs. 1-47; col. 10: 30-67).

As per claim 40, it is anticipated in the Deaton et al system that an identifier customer

may receive a discount coupon through the mail based on his purchase history criteria (col. 10:

63-67; col. 67: 23-39). It is also understood in the system of Deaton et al that a customer will

originally fill out an application, providing customer's information, before a customer's personal

check can be accepted by the retail store as payment. Further, the customer's information

provided in the application can be used to profile the identified customer.

53.

determining the activities, **or purchasing activities corresponding to the customer's**

purchase history collected over a period of time and stored in a database associated with

CVC database of Master Controller 965 of fig. 19, of said consumer (col. 65: 61 to col. 70:

28);

determining the needs of said consumer for said beverage during said daily activities **upon**

analyzing the customer's purchase history or prior shopping transaction collected over

time using conventional data mining and/or niche marketing techniques to figure the

customer purchase tendency (col. 71:31-45); and

marketing said beverage in association with said needs

of said consumer for said beverage during said activities **or shopping transaction activities**

collected over a period of time by providing a discount coupon redeemable on the product,

such as a brand of coffee, for which the customer has indicated a tendency to purchase (col.

71: 31-45).

(col. 4: 52 to col. 10: 67;col. 89: 66 to col. 90: 34; figs. 29; col. 67: 23 to col. 68: 19).

59.

receiving data **or purchase data at a POS during a current transaction** corresponding

to representative **transaction** activities of said predetermined type of consumer, **who has**

previously indicated a tendency to buy an item based on his uses of the item (col. 71: 31-

45);

storing said data **or purchase data** corresponding to said representative

transaction activities of said predetermined type of consumer in marketing

database **or a database associated with CVC Master Controller of fig. 19**;

receiving data **or purchase data** corresponding to representative uses **or consumption of**

said item **or a certain type of coffee** by said predetermined type of **identified** consumer, **who**

uses a check or credit card at a POS (Anticipated step-col.71: 31-45);

storing said data **or purchase data** corresponding to said representative

uses **or consumption** of said item or **a certain type of coffee** by said predetermined type of

consumer in said marketing database **or a database associated with CVC Master Controller**

of fig. 19, which holds consumer's purchase history (Anticipated step-col.71: 31-45);

determining a relationship **or correlation** between said data corresponding to said

representative **transaction** activities of said predetermined type of consumer and said data

corresponding to said representative uses **or consumption** of said item or **a certain type of**

coffee by said predetermined type of consumer **who uses a check or credit card at a POS**

(Anticipated step-col.71: 31-45), upon analyzing, using conventional data mining and/or

niche marketing techniques, an identified shopper's prior shopping transaction during a

series of preset number of weeks and subsequently, upon meeting a predetermined

criterion by the shopper, providing a discount coupon to the identified shopper or

customer redeemable on the identified item, thereby making the coupon program more

effective; and

storing said relationship **or correlation** in said marketing database **or a database**

associated with CVC Master Controller of fig. 19, which holds consumer's purchase history

(Anticipated step-col.71: 31-45).

As per claims 60-62 and 65, it is anticipated in the system of Deaton et al that, upon

analyzing, using conventional data mining and/or niche marketing techniques, an identified

shopper's prior shopping transaction during a series of preset number of weeks and subsequently,

upon meeting al least one predetermined criterion by the shopper, a discount coupon redeemable

on an identified item or a certain type of coffee continuously used by the customer will be

provided to the customer or shopper during a transaction at a POS, thereby making the coupon

program distribution more effective (col. 71: 31-45). Moreover, it is understood that a message

regarding the said discount coupon will be communicated to the identified customer at the POS

by displaying the message on the ECR display 968 of fig. 20, by printing the message using

receipt printer 969 of fig. 20 or by encoding the message on the customer's smart card 53.

Regardless of the medium used, a copy of the message, which authorizes the identified customer

to redeem the discount coupon, will be electronically stored in a database or marketing database

of CVC Master Controller 965 of fig. 19 for verification. Finally, the redemption data regarding

the discount coupon on the identified item will be stored in the database for further processing so

that the effectiveness (conversion rate) of the discount coupon distribution program can be

measured, as anticipated by Deaton et al (col. 71: 31-45; col. 4: 52 to col. 7: 54).

As per claims 63-64, it is anticipated in the Deaton et al system for customer promotion

that a store will compute the average transaction amount or selling price of an item, such as a

brand of coffee, on which a discount coupon is given to an identified customer or shopper based

upon his prior shopping transaction, thereby determining the average gross profit margin for said

item.

Please consider the entire reference.

Conclusion

Although the following references were not used in this office action, they were highly

considered. Applicants are further directed to consult these references for more details.

"Checking Out the Customer" by Lena H. Sun is a good prior art under a 102 rejection.

US Patent 5, 974,396A discloses a marketing system for analyzing purchase data and

forming clusters.

US Patent 5,999,908A to Abelow discloses a system to design an article or a piece of

hardware for a customer based on the customer's preferences and wherein the customer is

provided with a handheld device to monitor his use of the article or hardware for troubleshooting

and/or upgrade purpose.

US Patent 5,459,306A to Stein et al. discloses a system for delivering product picks to a

user wherein the user's use of the product is tracked and stored during the product lifespan and

subsequently used to further target the user.

Further, all the IDS submitted by the Applicant read on the claimed invention.

Any inquiry concerning this communication from the Examiner should be directed to

Jean D. Janvier, whose telephone number is (703) 308-6287). The aforementioned can normally

be reached Monday-Thursday from 10:00AM to 6:00 PM EST. If attempts to reach the Examiner

by telephone are unsuccessful, the Examiner's Supervisor, Mr. Eric W. Stamber, can be reached

at (703) 305- 8469.

For information on the status of your case, please call the help desk at (703) 308-1113.

Further, the following fax numbers can be used, if need be, by the Applicant(s):
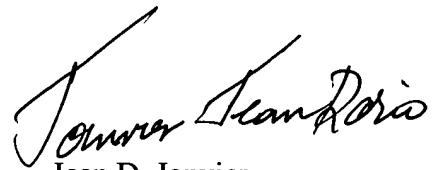
After Final-   703-872-9327

Before Final -703-872-9326

Non-Official Draft- 703-746-7240

Customer Service- 703-872-9325

JDJ   Jean D. Janvier

05/29/04   Patent Examiner

                                                                 Art Unit 3622